

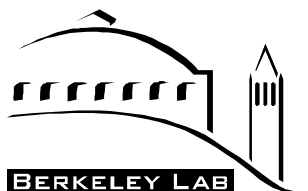
**Design, Fabrication and Installation of an Emittance Scanner Device**

Matthaeus Leitner

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## **Design, Fabrication and Installation of an Emittance Scanner Device**

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The milestone, *"Design, fabrication and installation of an emittance scanner device"* has been completed November 16<sup>th</sup>.

As shown in figure 1 the new diagnostic setup includes an ion source mounted inside a reentrant cylinder. A linear translator vacuum feedthrough with a stepper motor is installed on top of the diagnostic spool and serves as mechanical support for the scanner head. The translator incorporates vacuum feedthroughs for water lines and electrical connections to the emittance scanner. Figure 2 shows that the movable emittance scanner head is located right behind two new (mirror-like polished) stainless steel extraction electrodes, a Faraday cup is mounted below the emittance scanner. The whole setup is pumped down and all electrical connections are in place.

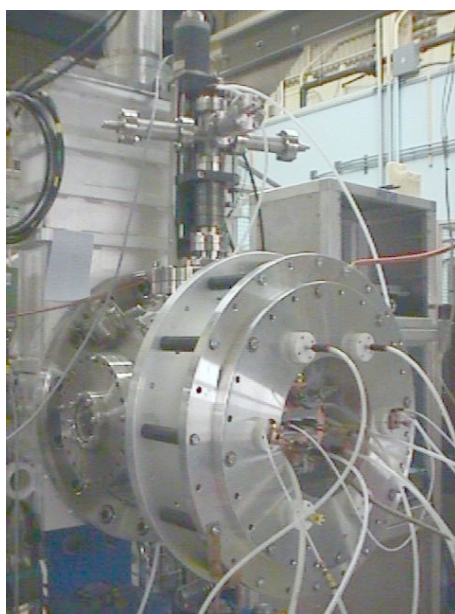


Figure 1



Figure 2